

# LIBRARY

Type	Name	Description	Promoter Sequence	Degrading or Binding Enzyme
metal sensing	BBa_1721001	Lead Promoter	... gaaaacctgtcaatgaagagcgatctatg	
	BBa_1731004	FecA promoter	... ttctcggtcgactcatagctgaacacaaca	
	BBa_1760005	Cu-sensitive promoter	atgacaaaattgtcat	
	BBa_1765000	Fe promoter	... accaatgctgggaacggccagggcacctaa	
	BBa_1765007	Fe and UV promoters	... ctgaaagcgcataccgctatggagggggtt	
	BBa_J3902	PrFe (PI + PII rus operon)	... tagatatgcctgaaagcgcataccgctatg	
	MTT1 promoter	CdMT MTT1 promoters, Cd2+ promoter	--	Cd Metallothioneins MT1
	MTT5 promoter	CdMT MTT5 promoters, Cd2+ promoter	--	Cd Metallothioneins MT5
	MTT2 promoter	CuMT MTT2 promoter	--	Cu Metallothioneins MT2
	OsMT-I-4b promoter	respond to various heavy metal stresses such as(Cu2+, Zn2+, Pb2+ and Al3+	...gtactactactataaat	
	metallothionein-II A	zinc and cadmium responsive	...gatccgggcttttgcactcgctcccggtctta	

		element		
	zra promoter	zinc responsive promoter	...tttcaataagctttcaataag	
	zrf promoter	zinc responsive promoter	...ttttaataagctttcaataag	
<b>antibiotics ensing</b>	OsMT-I-4b promoter	respond to various abiotic stresses at different levels of intensity.	...gtactactactataaat	
	lancl1_1	LanC antibiotic synthetase component C-like 1	...acgatgaccctcctgaacactagatggcggcattgagtcaaa ccaaaacAGCGTGTCTG	
	HS_HTN1	Histatin 1., Biomineralization, Fungicide, Antibiotic, Signal, Phosphorylation.	... aaaggagagatttcaacgtgtttaatacatcagccatatagaaa aggacATCTCTTGAGA	
	LANCL1_1	LanC antibiotic synthetase component C-like 1	...aatagcccttctgttactgtccggggctgcggggtgagaggcc agggccGAGAAGGGCTT	
	LANCL2_1	LanC antibiotic synthetase component C-like 2	...agacacccccctccaacagtgatgaataggagggtgtct ccctccccCATCCCTCGGA	
	LANCL3_1	LanC antibiotic synthetase component C-like 3	...agtcggggggcggagcgggaggagtggcgcgggccccgcg tgggtcctgcCAGAGATCACC	

	tetracycline			GSTs
	macrolides antibiotics			Erythromycin esterase
<b>natural toxins sensing</b>	ANTXR1	anthrax toxin receptor 1	...aaacagcatcggagcggaaaccagaggggaaacctgaa ctctccagaCAATTGCTTCC	
	ANTXR2	anthrax toxin receptor 2	...ggccagctagcctctcccctaaaggggacggcctgtcagc gcagtgccAGAGTCCAGCA	
	RAC1	ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1)	...ggcgcgggggaggggagggcgatgtgagtgagcgggcc atttcctgtTCTCTGCAGTT	
	RAC2	ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2)	...cgtggggagagcagcttgagtaagtcccctccgttctctct gccccACCACCGCTGC	
	RAC3	ras-related C3 botulinum toxin substrate 3 (rho family, small GTP binding protein Rac3)	...ccgcgcccggcgctcggcgcgctcggtgtctccggccgat cgctcggCGCTCGGGTCC	
	RNASE2	ribonuclease , RNase A family, 2 (liver, eosinophil-d	...ccaaccaccaagggatgctttatttaaagtccaagtagg ggagacCAGCTGCCCCCT	

		erived neurotoxin)		
	RNASE2	ribonuclease , RNase A family, 2 (liver, eosinophil-d erived neurotoxin)	...ccaaccaccaagggatgctttattaaacagttccaagtagg ggagacCAGCTGCCCCCT	
	LTA	lymphotoxin alpha	...cccggggccccagccccgacctagaaccgccccgctgcctg ccacgctgcCACTGCCGCTT	
	LTBR	lymphotoxin beta receptor (TNFR superfamily, member 3)	...tcctagcacctcccttctgtctctgccccctccttggctcttctcc TCCAGGATCTG	
	LTBR	lymphotoxin beta receptor (TNFR superfamily, member 3)	...ggctcccagcgctccctgtccccgccccgcccagctcgct ccactccCACTTCCTGAG	
	LTB	lymphotoxin beta (TNF superfamily, member 3)	...ggtggggccgctccctgaggtatgaaagccccctgctctggctc tggttcAGTCTCAATGG	
<b>fungal toxins sensing</b>	Aflatoxins			
	Microcystins			mlrA,mlrB,mlrC, mlrD
	Zearalenon e			ZEN-jjm
	4-HPA			GeneBank Z37980 and M17609
	ethinyloestr adiol			BPUL
	insecticide			Catechol-2,3-dio xygenase